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OPTIC-NEURITIS AND PERI-NEURITIS AND THEIR CONNECTION WITH CEREBRAL DISEASES.

By Xavier Galezowski.

Docteur en Médecine de la Faculté de Paris; Laureat de la même Faculté; Professeur d' Ophthalmologié a l'école Pratique de la Faculté de Paris, Membre de Plusieurs Sociétés Savantes.

[Translated by S. FLEET SPEIR, M. D.,]
Surgeon to the Brooklyn City Hospital; Surgeon to the Brooklyn Eye and Ear Infirmary.

Ophthalmoscopic investigations are daily becoming more extensive, and their utility in the diagnosis of ocular, cerebral, and syphilitic affections cannot now be disputed. But one will be very much deceived if willing to admit with some authors, that the ophthalmoscope is sufficient of itself to resolve the difficult problems which arise in the diagnosis of cerebral diseases.

The alterations of the papilla may complete the series of phenomena which indicate certain diseases, and consequently facilitate the diagnosis, but these isolated signs cannot replace all the rational symptoms of diseases of the brain.

Cerberal diseases very often produce alterations in the ocular nerves; sometimes it is paralysis of the third or sixth pair which is developed either at the commencement, or during the progress of the disease—at other times, only changes in the form and size of the pupil are observed. MM. Baillarger, Calmeil and several other authors have very justly remarked that inequality of the pupil is constantly noticed in general paralysis, and, what is more interesting to note, is that according to M. le Professeur Lasegue, the pupil of the left eye is in the majority of cases larger than that of the right.

The optic nerve is as frequently attacked in cerebral or cerebro-spinal diseases, as the other cranial nerves. Sometimes, indeed, the ophthalmoscope shows us a progressive atrophy of the papilla; at other times, on the contrary, it is hyperæmia and even inflammation of this nerve which is developed. In this latter case there is true optic neuritis which we here propose more especially to study.

This paper has for its object the advancement of correct ideas on the results of ophthalmoscopic investigations, and on the relations which exist between inflammations of the papilla and different diseases of the brain. This study is of still more importance, as it is the result of several years of research made in the hospitals of Paris—thanks to the obliging concurrence of the physicians in charge—who have kindly afforded me the opportunity of investigating this subject.

On the other hand, this paper is supported by observations gathered and published by different authors in France, Germany, England, and in Holland. Before undertaking the study of optic neuritis, we shall say a few words on the anatomy of the nerves and vessels which proceed directly from the brain.

I.—STRUCTURE OF THE OPTIC NERVE.

In its orbital passage, the optic nerve is covered with two sheaths—one external, which is a continuation of the dura-mater—and the other internal, which is constituted by the prolongation of the pia-mater. Between the external and internal sheath there is very little adhesion, being united by a loose celular tissue. The internal sheath is very closely united to the substance proper of the optic nerve, and after having constituted a general covering, sends prolongations into the interior of the nerve to form multiple partitions for

the isolated fibres, as well as for divers groups of these same fibres.

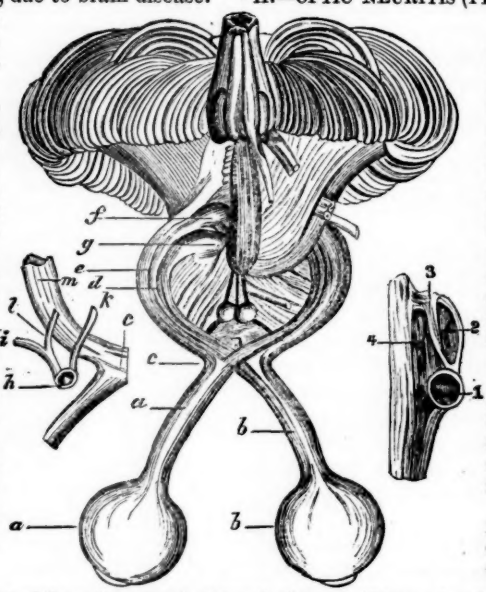
This internal sheath has been called by M. Robin, the périnèvre. The périnèvre is then constituted by the prolongation of the pia-mater, which carries with it a large number of capillary vessels. These capillaries are the nutritive vessels of the optic fascia of the chiasm as well as of the optic nerves. A large number of them extend as far as the papilla, and constitute upon its surface the cerebral or nutritive vessels of the papilla, as I have already shown in a paper addressed to the Académie des Sciences, 1865. It is these vessels which impress upon the papilla that characteristic roseate hue which is the first to disappear in atrophy of the papilla, due to brain disease.

We will now give the origin of these vessels—and their principal anastomoses:

1st. The chiasm receives several filiform branches which have no regular disposition.

2d. One quite large branch proceeding from the middle cerebral goes to the corresponding optic fascia; we call it the *anterior optic artery.*

3d. Four quite large vessels enter into the optic fascia at the level of the posterior border of the pedunccles and thus separate by a well defined line, the optic fascia from the corps genouille. We call these vessels the *middle optic arteries.*



(Fig. 1.) *a*, External fibres of the optic nerve; *b*, Internal fibres; *c*, Chiasm; *d*, *e*, Optic tract; *f*, Testes; *g*, Nates; *h*, Internal carotid; *i*, Middle cerebral artery; *k*, Posterior communicating artery; *l*, Anterior optic artery; *m*, Middle optic.—1, Centre of testes; 2, Gray substance of the nates; 3, White fibres; 4, Fibres of the processus cerebelli ad testes.

4th. One arterial branch enters the posterior border of the testes and is here distributed in the latter. This is the artery of the *testes or posterior optic artery.*

The researches of M. Sappey have fully confirmed the existence of cerebral or meningeal vessels in the optic nerve. M. Fort, in the last edition of his anatomy, also gives a description of these vessels. M. Allbutt, in dissecting this part of the brain, affirms that he has found, in the majority of cases, the same disposition of vessels which I have described, and it is only in a few cases that he has seen any other.

The nerve fibres of the optic nerves constitute the second and essential part of this nerve. They are very compact and formed in bundles or groups, and united together by the compact tissue of the envelope or covering.

It will be apparent, by this description, that the mass of cellular tissue of the envelope supplied with its vessels, is not of less importance than that of its nervous fibers. Inflammation or degeneration can consequently attack either of these isolated substances, or the entire structure of this nerve.

In the first case we will have what is properly called *optic-neuritis*, and in the second *peri-neuritis.*

II.—OPTIC NEURITIS (PROPERLY SO CALLED).

Inflammation of the optic nerve can only be recognized by the aid of the ophthalmoscope, and the symptoms assigned by the patient, as well as the external signs, *only* complete and confirm the diagnosis. Consequently, it is necessary to thoroughly understand the ophthalmoscopic signs of this disease, its different forms and stages, and to indicate the analogies or similarities which exist between this and other affections of the optic nerve and of the retina.

The optic nerve at its entrance into the eye forms a round or oval disc, the size of which varies according as it is examined with a lens of greater or less strength. Its surface is almost always at a level even of the retina; and it is only at the centre that a slight depression is found. That, M. Sappey very correctly calls *cupule centrale.* In the normal eye, the retina and the papilla are found at the main focus of the crystaline lens, and cannot be perceived by a simple illumination with the mirror. In the hypermetropic eye, on the contrary, the retina is found nearer the crystaline lens and in front of the main focus, which brings into view the papilla and its vessels by a simple illumination by the reflector.

In the case of optic neuritis the aspect of the papilla is entirely changed. It is very much swollen, and sometimes increased to twice or three times its normal size. Its surface is consequently thrown very far forward, and in approaching the crystalline lens it is perceptible by a simple illuminator with the reflector as in hypermetropia. The outlines of the normal papilla are very distinctly delineated in the midst of the red fundus of the eye. They are free, and often separated by a narrow pigmentary border. In optic neuritis the outlines of the infiltrated and swollen papilla appear very irregular, concealed by the serous exudations which give an irregular aspect to the optic disc itself. The papilla appears to have fringed edges. The color of the tumefied papilla is changed, sometimes it is very dull, of a whitish gray tint, at other times, on the contrary, it is red or whitish red; coalescing, however, with the color of the fundus of the eye, and from which it is only separated by an exudative patch. The vessels of the retina and of the optic nerve present more characteristic changes, in consequence of the swelling of the optic nerve; in its passage through the optic orifice there is produced a sort of strangulation: the arterial blood can only pass in small quantities, and the arteries become filiform. Sometimes they are perfectly white and exsanguinated; a case of this kind has come under the observation of M. le. Dr. GUNEAUD DE MUSSY, at the Hôtel Dieu. The veins become varicose and tortuous; in places they form black varices filled with blood. They are, at the same time, easily depressed, which causes allow them to be flattened at the point where they cross the arteries, and on each side of the artery true fibrinous coagula are apparent.

The cerebral vessels of the optic nerve—the existence of which on the papilla, I have already demonstrated, and which have been since confirmed by MM. SAPPEY and ALLBUTT—are also exceedingly engorged, principally in certain kinds of cerebral tumors.

Inflammation of the optic nerve is not usually followed by any alteration of the retina; this membrane retains its transparency. It is only in exceptional cases that there are more or less numerous sanguineous effusions—which may, or may not, be accompanied by white exudative spots. This is most apparent in perineuritis consecutive to meningitis. In 30 cases of optic neuritis—described by authors—there are not more than 8 instances of apoplexy of the retina which have been observed with the ophthalmoscope and verified by an autopsy. For my own part, I have not noticed it in cerebral tumors, and I always refer it to meningitis. In a case reported by myself, the effusions and neuritis were consecutive to a tumor of the nerve itself. The vitreous humor and the choroid are almost always intact, and it is syphilis alone which produces changes in them. In optic neuritis, M. SCHWEIGGER has observed some slight alterations of the choroid near the papilla after the disappearance of the tumefaction of the optic nerve. There had evidently been, atrophy of the choroid by the compression which the tumefied retina exercised on the adjoining choroid. It is plain however, that this alteration is of no practical importance.

Optic neuritis is accompanied by a considerable weakness of vision, the patients lose the power to distinguish far and near objects. They find it difficult, even at the commencement, to distinguish the character of the letters in No. 15 or 20 of the typographical scale. Often they loose their sight entirely.

The pupils are usually dilated and motionless. This dilatation is so decided that the iris is often only perceptible in the form of a small ring at the periphery of the cornea.

Both eyes are usually affected and the papilla of each eye presents the same appearance.

III.—PERI-NEURITIS AND NEURO-RETINITIS.

This form of inflammation differs but little from the preceding; all the signs of neuritis, described above, are less marked, the projection of the optic nerve is scarcely perceptible; the centre of the papilla is frequently congested and slightly covered with exudation. It is only at the periphery of the papilla that we find exudations, and these are often extended along the course of the vessels and to a considerable extent over the retina. The central vessels are less engorged. But the special characteristic of peri-neuritis is the simultaneous inflammation of a large extent of the retina: the peri-papillary exudation extends to a considerable distance from the border of the papilla. This exudation has a circular form and we often find extravasations of blood on its circumference.

We met with a case of this kind at the clinic of M. le Professeur Béhier, in a young woman who was attacked with a severe cere-

bral affection, accompanied with pain in the head, convulsions, loss of memory, and a considerable weakness of vision. The ophthalmoscopic examinations made in the presence of M. Béhier and his chêf de clinique, M. Baumezt, showed the existence of a peri-neuritis or double neuro-retinitis—and numerous points of extravasation of blood—situated especially at the verge of the retinal exudation. This condition disappeared almost entirely under the influence of anti-syphilitic treatment, and the sight returned in a great measure, more especially in one eye.

In peri-neuritis the pupils dilate imperfectly contrary to what occurs in the preceding form. Thus, in the case of a patient of M. le Professeur Laségue, who was attacked by violent pain in the head, vomiting, and fever, we found inflammation of the optic nerves under the form of peri-neuritis; but the pupils were so contracted that it was necessary to dilate them with atropine before the ophthalmoscopic examination.

In optic peri-neuritis, affection of the sight is never so marked as in optic neuritis, properly so called, and there is in this an additional sign for the differential diagnosis of these two affections. We can readily understand that the inflammation gaining the nervous fibres would lead to a loss of sight very rapidly, or progressively, whilst in inflammation of the tissue of the envelope, the fibres, although compressed, are not destroyed, and the function of the transmission of the light may continue.

According to M. Graefe, there are two forms of neuro-retinitis; one is characterized especially by a veinous stasis in the pupil, by an intense redness, a distinct prominence, and frequently, also, by hemorrhage, while, in the other form, the swelling and the redness of the papilla are less intense, but the opacity of the tissue is more decided and more extensive, and passes from the internal layers of the retina to the middle and external. This last, according to M. Graefe, is neuritis extending the length of the nerve, while, in the first form, the alteration is limited to the intra-ocular termination of the optic nerve, and does not extend to the extra-ocular portion.

This interpretation does not appear to us to be altogether exact—and it will remain in all probability in the domain of hypothesis, as it has been stated by M. Graefe.

It seems to us difficult to admit that an inflammation of the optic nerve can be limited to the surface of the papilla without the optic nerve participating in the inflammation to a greater or less extent, such neuritis being caused by cerebral or orbital affections, or by a tumor of the brain—a meningitis—a cyst of the orbit—or idiopathic inflammation; a portion of the optic nerve will always be affected.

M. Allbutt also recognizes the two forms of neuritis which we have described; but he describes besides, a third form of inflammation, which he calls chronic neuritis. It ordinarily precedes certain forms of atrophy of the papilla, and is accompanied by a diminution of volume of the arteries and an engorgement of the veins. The optic nerve presenting a slight resistance to pressure, becomes atrophied. This affection exists in atheromatous disease of the vessels of the brain—but we class it usually with atrophy of the papilla.

In the description of optic neuritis, a great advantage will be gained if we can establish what are the different varieties of neuritis which we may encounter—according to their causes—and to indicate, if possible, the differential diagnosis of each. The following are the varieties, which we think ought to be recognized: Cerebral optic neuritis; orbital optic neuritis; syphilitic optic neuritis; rheumatic optic neuritis; and hysterical neuritis.

IV.—PROGRESS, DURATION, AND TERMINATION.

The progress of optic neuritis depends, in general, upon the cause of the disease. It is progressive and leads to an alteration of the optic fibres, which become more and more serious when it is consecutive to a tumor, and the pressure which is produced in the openings through the sclerotic, causing atrophy of its fibres and vessels, producing in time, atrophy of the papilla.

But this atrophy of the papilla resembles in nothing the progressive atrophy observed, for example, in locomotor ataxia. The papilla, which was infiltrated and swollen for a time, and the contour of which was lost in an exudation, cannot become atrophied without leaving a trace of this peri-papillary exudation. We were the first to show that "the serous infiltration or œdema of the papilla leaves traces by which we may recognize that the atrophy of the papilla was preceded by this œdema, which was caused by an acute cerebritis, a hemorrhage, or some other similar cause

which no longer exists." To these signs of infiltration, and of the irregular contour, I added later the varicose disposition of the vessels, either with or without increase in size.

It is very important to be acquainted with these signs; they show us the nature of the affection of the nerve or of the cerebal disease which has preceded the atrophy. German authors participate in these views, and M. Graefe says also in his last memoir on neuro-retinitis, that atrophy of the papilla after neuritis may be distinguished for a long time afterwards, from the simple atrophy which we meet with in cerebro-spinal amaurosis.

Optic-neuritis and peri-neuritis progress in a manner entirely different from either simple or tubercular basilar meningitis.

The inflammation does not always remain concentrated to the same degree in the portion of the meninges which surrounds the chiasm; it is often carried from this point to another part of the meninges, and then the swelling of the nerves subsides, the exudations are absorbed, the papilla recovers, in part, its transparency, and the nerves again perform their functions. The infiltration may even disappear entirely, and the sight be restored, as it happened during the past year to a patient under the care of M. Lasègue, who had double optic neuritis and from which she recovered entirely, but even in these fortunate cases, their remains a whitish coloration of the papilla and a tortuous and sinuous condition of the vessels; some times the retina around retains a slightly opaline tint, the sign of preceding infiltration.

It will be seen by this exposé, that the prognosis in this disease is not always the same; it varies according to the nature of the inflammation and the cause which has produced it. The termination is often very unfavorable in children; it is then due to tubercular meningitis. But every case of tubercular meningitis does not give rise to optic neuritis. We have seen with M. le Docteur BARTHEZ, at the hospital Sainte Eugénie, a large number of children affected with meningitis, who presented no sign of affection of the papilla. In the case of older patients, it is usually a tumor which is the cause of the neuritis, and consequently causes not only loss of sight, but death.

But there are also cases of hysterical neuritis which may recover without leaving any trace of the disease. We saw a case of this kind under the care of M. le Dr. RÉMOND. The double optic neuritis of this patient was cured entirely—being only the expression of hysterical phenomena.

(TO BE CONTINUED.)

CALABAR BEAN IN TRAUMATIC TETANUS.

By J. T. ROTHROCK, M. D.,

Of Agricultural College, Penna.

During the last two years there have been published *in extenso* in the MEDICAL AND SURGICAL REPORTER, and in the HALF-YEARLY COMPENDIUM, of the same editors, thirteen cases of the above affection in which the calabar bean was used. Others are reported, but not in sufficient detail to serve for an analysis. From so small a number no *certain rule* of practice can be deduced. But as the remedy is yet *sub judice*, it will not be amiss to sum up the results. I regret that I have not at hand more material on which to work.

Of these cases, all were males, the reason being obvious to every one. Six resulted in recovery, and seven in death. The ages of those recovering were nine, twelve, fourteen, and three simply stated as adults; and of those with unfortunate termination, nine, twelve, fourteen, two of twenty-five, twenty-eight, and thirty-eight. Though usually stated (and in the main with truth, perhaps,) that a larger proportion of children recover than of adults, such a conclusion is not indicated by the above facts.

In the cases under twenty years of age, tetanus supervened at periods varying between the second and fourteenth day after the injury; in those over twenty it appeared between the seventh and fourteenth day. In the cured the attack came on from the eighth to the sixteenth day; in those not cured, from the second to the fourteenth. In all, without regard to result, it ranged *mostly* between the seventh and the fourteenth, there being one on the second day, and one on the sixteenth.

The duration of the attack in those under twenty years of age was from three to twenty-seven days (two only being alive twenty days); it lasted in those over twenty, from three to twenty-four days. The absolute figures show no connection between the age of the sufferer and duration of the malady. The relation between the death and duration of the tetanus establishes the truth (known since the time of Hippocrates), that those dying, go early, and that the more chronic cases tend to recovery.

Five of the six survivors were treated with the bean alone, and the remaining one by it in combination with opium, in which case, the

benefit seemed more due to the opium than to the physostigma, for, on withholding it, the patient became worse, and in renewing it he improved. Four of the fatal cases had the bean alone, one used it with an opiate and two with cannabis indica. *In all more or less constitutional effect was produced in relaxing the tension, unless one can be excepted in which this effect was exceedingly slight.* Three of the recoveries were marked by prompt relief of the distressing symptoms, and in three the improvement was more gradual. In the fatal cases the temporary amelioration came promptly in but two.

Mode of administration apparently did not affect the result, though for obvious reasons the hypodermic method should always be used. Everything considered, the extract appeared more certain in its action than the tincture. *So far as mere drugs were concerned,* four of the six recoveries seem directly attributable to the Calabar bean; one to the opiate, and one about which there is doubt. In four of those with fatal termination, temporary benefit was with hardly a doubt derived from the bean. The three others having an opiate and Cannabis Indica in combination with it leave uncertainty in deciding how much good was done by the Physostigma.

Here a remarkable coincidence, (to say the least) appears:—out of the *six successful cases, four were decidedly stimulated and supported,* one moderately, and one not stated. Out of the unsuccessful, only one was largely stimulated, four moderately, one not stated, and one more in whom stimulant enemata were used but not retained. So striking a contrast between stimulation and cure, and mere stimulation and death can hardly escape notice. It calls up most forcibly such teachings as these:—"In all cases, there being no special indications to the contrary, I should be more disposed to administer wine in large quantities and nutriment, than any particular drug."—*Watson.* "For my part, I should certainly be more disposed to trust to alcohol than to any drug; but in saying this, I do not say I should place no confidence in drugs."—*Radcliffe in Reynolds' System of Medicine.* "In two cases which I have seen recover, opium and brandy were the remedies used."—*Hartshorne.* "The treatment of tetanus by different methods, has proved unsuccessful in a large proportion of cases. Among the remedies which have seemed to be sometimes successful, are, opium given in large doses, alcoholic stimulants, carried to the extent of producing intoxication, and the inhalation of chloroform."—*Flint.* "When much exhaustion exists, brandy, wine, and a generous diet are indicated along with quinine and other corroborants."—*Gross.* "Tetanus has also been successfully treated with wine." In one of the cases of cure reported by Mr. Curling, in his work on tetanus, brandy and porter were used, besides large quantities of wine. A similar result was obtained by Mr. Stapleton, with large doses of alcohol, and by Mr. Ilott with wine and brandy as the chief remedies."—*Stillé.*

In a number of cases relaxation of the spasm following the administration of the bean was followed by sleep, in one case of several hours duration, a most important adjuvant. Coincident with this, was, in most instances, a lowering of the pulse in frequency. One patient was made somewhat delirious by the medicine. In my experiments on cats, with the bean, I have observed a temporary madness, followed almost instantaneously by a natural mental calm.

Contraction of the pupil was observed in only five patients, even after liberal use of the remedy. Dr. Eben. Watson has remarked, "if this (contraction of the pupil) were a constant, or even common phenomenon, it would be an extremely valuable guide in giving the bean, but the effect on the pupil is *not often seen,* unless the bean is applied to the eye itself." Experiments have given me a remarkable verification of this statement. In a cat thoroughly under the influence of this drug, I observed a *dilatation of the pupils,* until I applied to one eye a few drops of the tincture, when it contracted, the other remaining as before. *This dilatation* may be questioned, *but after making the observation* I was gratified to hear that M. Bourneville had noticed the same thing before me. His statement is in the *Half-Yearly Compendium,* Number 5, January, 1870.

Hence the eye cannot be relied upon as indicating to what extent we may push this remedy.

Even after having procured a genuine article of the calabar bean, it may be found to act less vigorously than was expected. This may be due to the fact that some variation is known to exist in the strength of the physostigma. "The little, dark-colored, much-twisted beans

being the most virulent." From these facts it is difficult to indicate a suitable dose to begin with. Half a grain by the mouth and the fourth of a grain by the hypodermic method, will perhaps be safe in all adult cases. Individual susceptibility will also influence the effect, as is clearly manifest from accounts we have of its action on the negroes, by whom it is taken as a crucial test of innocence. On the authority of Dr. H. C. Wood, Jr., in his edition of *Pereira's Materia Medica*, "the minimum quantity which will cause death is not known; twelve grains of the kernel have produced alarming symptoms, and fifteen of the beans have caused death in an hour." It seems more than likely that some of it, administered in large doses in the cases I have examined, was the product of the milder kind of bean, or perhaps was a comparatively worthless article.

My own observations, as well as those of others, have shown a need of great caution being exercised in its administration, lest we produce a cumulative effect that will overwhelm the patient. Operating upon a full-sized, healthy cat, I injected gtt. v of the tincture, under the skin, ten minutes later gtt. v, twenty minutes later gtt. x, twenty-five minutes later gtt. x, with no other symptoms than a slight reduction of the heart's impulse, some difficulty in breathing, very faint general twitchings, and some nausea. Then in fifty-five minutes the animal had taken, hypodermically, gtt. xxx, and no alarming toxic effects were visible (indeed the effects seemed to be passing away). After waiting somewhat over an hour, I again injected gtt. x. This almost immediately threw her into general convulsive twitchings of a most marked character, which soon passed into paralysis of the hinder extremities, afterwards of the entire body, followed by perfect collapse with profuse salivation, and eventuating in death in another hour. Here the results were so out of all proportion to the last dose, as to indicate clearly a cumulative action.

On the other hand, a suspension of the medicine on relaxation of the spasm, may be equally fatal. In one at least of the seven fatal cases, it resulted in a disastrous return of the attack. And in a number of those cured, the spasmodic tendency only wore itself out very gradually under a continued exhibition of the bean.

It is safe, we think, to infer from the facts before us, that if *no improvement* is manifest after thirty-six to forty-eight hours fair trial with this remedy, we may as well abandon it.

In the event of poisoning from too heroic use of Physostigma in tetanus, we can have recourse to stimulation and hypodermic injections of strychnia, though extreme care must be exercised, lest the antidote provoke a return of the spasm. M. Bourneville asserts that atropine antagonizes the bean, and supports his statement by the fact that in six guinea-pigs, injecting with the bean and atropine, the animals did not succumb, though three days later *injecting the same dose* of the bean alone into the surviving animals, *all died*. My own experiments with strychnia versus Physostigma, have convinced me that an antagonism does exist. It is but fair to add that in a few of these cases, (some terminating favorably), the bean was used as a *dernier* resort, after other approved means had failed.

The results of this examination are less favorable than were hoped for, and if the unreported failures could be gathered together (cures *usually* are, and deaths *seldom* reported), it is highly probable that the proportion of recoveries would be still more reduced. Still, even the failures give good ground of encouragement, for in most of them we may claim some benefit due to the bean. Greater experience and a better article of the drug may give more permanent results in future.

To sum up them, we have out of thirteen cases of traumatic tetanus four recoveries in which this fortunate event seemed directly due to the administration of the calabar bean. In all the others we are probably justified in allowing it an anti-spasmodic effect. There seems to be a necessity for liberal stimulating and sustaining treatment along with the bean. The pupil is not to be taken as a guide in the administration of the drug, for in more than half the cases it does not contract, even when the system is under the control of the physostigma. Guard against its cumulative effects; but on the other hand, maintain the constitutional effects as far as is consistent with safety. In the event of administering an over dose, resort to stimulants, of hypodermic injections of strychnia, or of atropine.

If, along with stimulants, the proper treatment of the wound, if still open, and the meeting of symptoms by appropriate general treatment the calabar bean can sustain even the proportion of cures we have attributed to it, a great advance will have been made.

Hospital Reports.

PHILADELPHIA HOSPITAL.

March 23, 1870.

By F. F. Maury, M. D.

One of the Surgeons of the Philadelphia Hospital Lecturer on Cutaneous and Venereal Diseases in the Jefferson Medical College, etc., etc.

(REPORTED BY RALPH M. TOWNSEND, M. D.)

Gentlemen:—I have here a case of enlarged testicle. The man denies all syphilitic history, has had no sore throat, rheumatism, etc. His testicle commenced to swell thirteen weeks ago. He is 30 years old, and has lost flesh. There is pain in the part, and it is greatest at night. What condition does he labor under? Is it encephaloid, scirrhus, sarcocele, simple orchitis or scrofulous degeneration and enlargement? Let me explain briefly to you the chief characteristics of some of these affections.

Sarcocele,

From two Greek words signifying a fleshy tumor, is a common result of syphilis. It may come from more specific causes. Prof. Gross classifies sarcocele under the head of chronic orchitis. In a testicle thus affected, a section reveals a dense fibrous texture, of a reddish or brownish color, interspersed with small cells. Syphilitic sarcocele commences as an interstitial inflammation and deposit. It rarely begins in the dartos scroti or proper covering of the testicle. Its pathology is that of the formation of a gummy tumor in any part of the body. It is an affection that has claimed great attention. On the one hand Ricord says it can always be reduced, while on the other hand, others say it is only amenable to the knife. Ricord has not struck a happy medium in his assertion: he goes too far. All diseases of syphilitic origin in other parts of the body are not uniformly amenable to treatment; why then in this particular part?

We may have

Scrofulous Atrophy, or Degeneration of the Testicle.

The case before you, in its external features, resembles this affection. I am unable to say whether the present case is specific or not, but my knife shall reveal my diagnosis. If the affection were encephaloid, there should be larger growth and greater glandular involvement.

Scirrhus of the Testicle

occurs late in life. It begins in the body of the gland and is slow in its progress. The tumor is hard, lobulated, and misshapen, and acquires not the growth of the one before you. The countenance assumes the appearance denoted of cancerous cachexia, and the spermatic cord and lymphatics become involved. The latter appearances are absent in this case, and we will, therefore, exclude scirrhus from our diagnosis. Traumatic orchitis may produce a testicle, to all outward appearances, similar to the one before us. Whatever the affection may be, I am confident it requires for its relief, removal of the testicle. When removed, a section of the tumor will doubtless reveal a yellowish, curdy, and cheese-like substance, the result of the scrofulous degeneration to which I have already alluded. To give my patient every chance, however, I first make an exploratory incision. The result is as I predicted. You see issuing from the internal structure of the affected gland, the thick, yellowish, cheesy mass, so characteristic of scrofulous degeneration. Structural change having destroyed the function of the testicle, I will remove it. Its loss will not incapacitate the man from performing marital relations, as has been repeatedly demonstrated. (Dr. Maury, supporting the tumor with his left hand, by a single incision along its anterior surface, divided all its coverings. The tumor was then partly enucleated and partly dissected out, but before detaching it from the spermatic cord, a stout ligature was thrown around the latter and firmly tied. The enlarged testicle was then detached from the cord and entirely removed. This, as with other specimens, was passed through the class for their due inspection. R. M. T.) If this be not the result of syphilis or scrofula, it is encephaloid. The involvement of tissue immediately surrounding the diseased gland, its black and decidedly unhealthy appearance, are the causes of my suspicion. If the affection should return, no further evidence would be wanting. All this diseased structure, you see, I carefully trim away. It does not bleed, which is not generally the case with the dartos, as it is a very vascular structure. You saw how securely and firmly I ligated the cord, and this you should always do before detaching the testicle. If you do not, it will slip back within the abdominal ring, and be difficult to recover, and occasion much hemorrhage. I carefully pare the edges of the scrotum and bring them together with pins, similar to the procedure in operations for hare-lip. Passing a thread elliptically and like the figure 8, evenly and firmly approximates the edges. I use three pins, and at the upper portion of the wound, over the cord, will introduce an interrupted suture. In ligating the cord, if you use a wire, let it be of silver. After tightly tying, twist the free ends, cut off close, and let cord and ligature slip back into the inguinal canal. The small lap of wire that comes away, will do no harm. If you use a silk ligature, only cut off one end close, and let the other protrude from the external wound.

Iritis.

This girl, aged 19 years, has been in the Hospital five months. She came in with primary syphilis, and has gone through all its gradations. She now labors under a secondary affection, viz.: iritis.

Iritis is a general ophthalmitis in which conjunctiva, cornea, sclerotic, choroid, iris, and sometimes retina, are all affected. It is a more constant attendant upon lichen than upon any other skin eruption. This girl has upon her face the eruption often attendant upon the the free internal use of potassium. She may have three forms of iritis, (1) simple, (2) rheumatic, and (3) specific. The latter may be distinguished from both the former by the history of the case. The most intense pain characterizes rheumatic iritis, though in the simple form there are often great pain and photophobia. In specific iritis we have the least pain, but what exists is always aggravated at night. Photophobia, an attendant of both the other forms of iritis, is often absent in the specific variety.

This affection is called iritis on account of its peculiar action on the muscular curtain of the eye. The iris is composed of fibrous stroma, muscular fibres, and pigment cells. The muscular fibre is involuntary, and consists of circular and radiating fibres. The latter enlarge and the former contract the orifice of the pupil. Belladonna and its alkaloid atropia act to enlarge the pupil, while opiates contract it. But the first named remedies do not expand, or the latter named contract the pupil, under all circumstances. When lymph, as a product of inflammation, is thrown out as an interstitial deposit, it prevents the action of the muscular cells of the iris. So your remedies, mydriatics, so-called to be of avail, must be applied at the proper time. If used too early, they dilate the pupil, and the coming inflammation will splint and keep it so dilated. Used too late, they are of no use whatever. If you are called to a case in its infancy, treat it as any inflammation. Exclude your patient from the light, stimuli, and salt food. Give antiphlogistic remedies. Do not use mercury when the patient is broken down, but use it when applicable, for it controls serous effusions. It has a specific action on such membranes as that of Demoor, which lines the aqueous chamber of the eye. Give one to two grains of calomel three or four times daily; continue with from $\frac{1}{4}$ to $\frac{1}{2}$ gr. of opium, to prevent its running off by the bowels. Give a dose of castor oil every two or three days, to remove the collected bile, etc.

Williams, of Boston, proposes potassium as a specific for iritis. Another proposes turpentine. No one treatment, however, will apply to all the cases. Symptoms are so modified that we must modify the treatment to suit the modificatlons of the symptoms.

Topically, use atropia in solution; a grain to the ounce of water will generally prove of sufficient strength. A good formula is

R.	Atropiæ sulph.,	gr. j.
	Zinci sulph.,	gr. ij.
	Aquæ rosæ,	ʒj M.

S.—To be dropped in the eye as required.

A fly blister or chromic acid may be used as counter irritants to the temple. Use the atropia till sufficient dilatation of the pupil is obtained. Be careful of strong solutions. A four grain solution of atropia I have seen occasion nervous chill, and tremors. Hot, cold, or tepid water may be applied to the eye, as shall prove most agreeable.

Precocious Prostitution.

The patient now before you, a child in years, as well as looks, only 17 years of age, one of my residents informs me, has symptoms of chancre of the uterus. She has been in the hospital two weeks. My examination of this girl did not reveal a chancre. I have never seen but five or six chancres located on the os uteri. I found her with abundant gonorrhœal discharge. She is emaciated and broken down. I find cloasma on her breast and arms. She makes different statements as to her condition. She is hectic, has cough, and is probably suffering from syphilis engrafted on tubercular disease. When I was a resident here, a respectable looking woman came to me one day and said, "Doctor, I bring my daughter here, she has been acting badly." The girl was not developed; was 13 or 14 years old, and was suffering both from chancre and gonorrhœa. Two days after the mother again came, this time herself a patient and suffering with chancre. Going in the ward the day afterward, I found the mother and child occupying adjoining cots. The impression then and there made upon me has never been erased. I have seen many similar cases since. Look at this girl, young, delicate, ruined forever! Her future is shame and the hospital. Her usefulness is gone, and the foulest disease has perpetual hold upon her. There is more than individual treatment in this case gentlemen.

Think you that when Ricord sat at the banquet tendered him by the prostitutes and grisettes of Paris, that aught but satisfaction filled him when he remembered that his efforts at legalizing prostitution had reduced syphilis from ninety to thirty per cent.? And as you look at the case before you, does not the question naturally arise, what can I do to better such a condition of things. If we must have an evil like prostitution, is it not better to encircle it with such laws as shall protect both men and women? The advocacy of such a scheme will call down upon you the denunciation of press, and pulpit, and people. But with this case for a preface, think out for yourselves the remaining chapters of the volume whose pages shall stay the growing evil that threatens to envelop us. Regardless of ridicule, reproach, and denunciation, dare to do that which you think is right. It is the open question for you to decide whether gambling and drinking and prostitution shall grow to rank and riot in the shade, or whether dragged to the light, they shall be pruned and weeded, and if endured, be endured in the least objectionable form.

Medical Societies.

BALTIMORE MEDICAL ASSOCIATION.

Reported by J. W. P. Bates, M. D.

Apoplexy.

Dr. Williams.—There are are many definitions of the term apoplexy; but a true definition is difficult to give, and it is usually defined by an enumeration of its prominent symptoms; as coma produced suddenly by an effusion of blood or serum, paralysis, general or local, and followed by fever. It has many and various causes, and cases are frequently termed apoplectic which are not so in reality. Several modern writers say that apoplexy is a rare disease, and Trousseau goes so far as to assert that he has never seen a case of genuine apoplexy. This is overstating the case, for all who have much experience have seen true cases of this disease. We have all seen these sudden strokes in which neither sense nor volition remained. The patient may have just eaten a hearty meal, or in other cases, the condition seems to be that of perfect health, and all at once receives a sudden stroke and expires in spite of our endeavors to relieve. I knew a lawyer who was actively engaged in pleading a case at court, who was suddenly seized, and died in forty minutes. Trousseau says the common mode of attack is a gradual numbness developing in the parts involved accompanied by stertor, There are several diseases which might be confounded with apoplexy, among which is drunkenness. This may be distinguished by the breath, the stertor, and the pupil. The relaxation of drunkenness is more complete, and the pulse more rapid. We may also confound it with poisoning, (especially by opium); epilepsy and sun-stroke; all of which have some resemblance to the disease under discussion, and regarding all of which it is essential that we should be on our guard as to the treatment which might be useful in one of those diseases, or even fatal in this.

In opium poisoning, the action of the heart, lungs, and pupil are different. The pupils are contracted, heart is natural, and the lungs more impeded. I was called to see a woman at the Howard House soon after I began practice. She breathed slowly, and her pupils were natural. I acted on the supposition of opium poisoning, and was gratified to find my supposition correct, and my efforts successful. Epilepsy may often be diagnosed, by learning that the patient is subject to that disease, by withholding our opinion for a short time, as the coma of epilepsy is soon over, together with the different appearance of the patient, as foaming at the mouth, biting the tongue, &c. Sun-stroke may usually be excluded by attention to the season and other influences surrounding the patient at the time of seizure. The causes of apoplexy are predisposing and exciting, or direct and hereditary. Old age, which brings with it an atheromatous condition of the arteries, is a frequent cause of their rupture and the effusion which ensues. It is apt to accompany softening of the brain, sometimes preceding, at other times succeeding it. A lady had undoubted softening of the brain last Aug. and was lately (seven months after) paralyzed. Embolism may also give rise to apoplexy. The exciting causes are many. Violent exertion, straining, excessive cold, gormandizing, and by reflex action, external cold after a hearty meal, may all act as causes. I knew a Doctor who ate very heartliy at night and soon afterwards exposed himself to intense cold, which seemed to be the undoubted cause of a slight attack of apoplexy which came on soon afterwards, and was relieved by a prompt emetic.

Our prognosis in so dangerous a disease must necessarily be guarded in all cases, for some which are slight at first march on to a fatal issue, and others which are very bad at first, get better, or even well. So much are we in the dark in regard to the result, that it is prudent to give very guarded answers to the questions of the friends.

Treatment.—Many now abandon the old habit of blood-letting. Trousseau and Todd neither bleed in the primary attacks nor the secondary fever. I believe judicious bleeding to be useful in many cases. Trousseau says the damage is done before we are called, that bleeding cannot remove the already formed clot, nor influence it; but I contend that it may control further hemorrhage, and I should invariably bleed where I found a full face, flushed with engorgement, and a full pulse. I would bleed for two reasons: to weaken the force of the blood against the clot, and to prevent excessive reaction. But where the patient is pale, weak, and has an irritable, soft pulse, I refrain from bleeding, even though the bystanders do urge that the fathers of the profession always bleed. If we act from actually existing circumstances, in each case, we do better than by following any exclusive dogma. Next to bleeding is active purging, which we find to be much in vogue even among the opponents of the lancet. This relieves the bowels from ingesta, and also acts both as a direct and indirect active depletory measure. Emetics are of great use when indicated, as is sometimes the case, when excessive cold, &c., has stopped digestion and induced the attack.

Dr. Uhler.—In regard to bleeding, I wish to touch upon one or two practical points. Let us inquire what is the effect of bleeding upon the blood. When we bleed we deprive the blood of its fibrin, which is the very element we depend on for the formation of the clot, which is to prevent further hemorrhage. What good do we do the man by bleeding him? If Bennett is right we have blood effused more copiously. My plan is to keep the patient quiet to prevent further effusion, and to allow

the clot to form, which is far more rational and successful than bleeding. Also by bleeding we increase the frequency of the heart's action in greater proportion than we reduce its force, so we gain nothing by reducing its force of stroke one-third, if we double the frequency of the beats.

Dr. WILLIAMS.—Dr. Uhler's objection is more imaginary than real. The clot is outside the circulation, and bleeding cannot effect its constituent parts, but only assists in keeping it from being disturbed whilst undergoing the process of sealing up the solution of continuity. Some apoplectic conditions have no clot, and in them bleeding does not, of course, interfere with the clot, but may unload congested parts and prevent effusion. Besides, we cannot tell the true apoplectic from the apoplectic condition, in both of which conditions, in certain patients, bleeding could not fail to do good, more especially in the cases of so called serous apoplexy. The bleeding produces a rapid absorption of the serum. In some conditions I have found verat. viride very useful to quiet the patient.

Chloroform.

DR. WILLIAMS.—As a therapeutic agent, chloroform is an important subject. I was originally taught that it was a sedative; that it acts by depressing the powers of life. ANSTIE terms it a stimulant, ranking it with alcohol, &c. WOOD and BACHE, DUSGLISON, and STILLÉ denominate it a sedative both internally and by inhalation. Again, I have never noted so much risk from its proper use, in cases where there is disease of the heart and lungs. I never let the reputed danger deter me from its use when otherwise indicated. I do not always succeed in producing the usual anæsthetic condition. I have applied it successfully to ligate hemorrhoids, and in a few days attempted to repeat it and found it impossible to bring the man under its influence, in consequence of his pulse and breathing. It is improper and dangerous to attempt to give chloroform, and conduct a delivery at the same time, for the physician cannot do his duty by supporting the perineum, &c., at the close of the labor, and at the same time give proper attention to the breathing, pulse, &c. In labor, chloroform quickens delivery if we only give a sufficient quantity to relax the uterus, but carried to the full point it undoubtedly prolongs labor by producing inertia. This should be guarded against, especially after the head descends, or sloughing of the soft parts may be induced. Six hours is deemed sufficient to engender this condition. I have never known this inertia to occur when only the relaxing effect of chloroform was sought. In puerperal mania, I have given it continuously so as to keep the patient asleep for thirty-six hours, after which she would awake perfectly restored. In eclampsia it is extremely useful, and has given me complete satisfaction. It also acts well in asthma, pertussis, and singultus.

Dr. STEIN.—I remember using chloroform in an operation for strabismus. The patient was a woman, æt. 16, and all seemed to be going on well, when suddenly respiration ceased, and it required vigorous artificial respiration to restore her. None of the agents had been given during the three minutes previous to respiration ceasing, and to me this accident remains a mystery.

Dr. HOWARD.—I think chloroform should be termed a stimulant. It is an excellent remedy in delirium tremens, also for shock following injuries. This shock is of two kinds—the moral shock and the direct physical depression. In cases of injury, I am opposed to waiting until the shock has passed off, but I give the chloroform and commence operating at once, and I generally find reaction begin, and the pulse rally with the first inhalation. As to the danger from chloroform in heart and lung diseases, I find it extremely exaggerated, and have learned to believe that it makes no difference if caution is exercised in administration. On one occasion the patient, after taking 12 or 15 inspirations, ceased to breathe, and the pulse stopped, but artificial respiration soon revived him. We changed the bottle for another, and completed the operation without further difficulty. I think the cause of these accidents is some impurity in the chloroform. I have several times seen a bottle act in the same unpleasant way on a large number of patients.

DR. STEIN.—In regard to classing this agent among the stimulants, I have tried it on myself, and found its after-effect similar to those of alcohol.

Dr. MAUGHLIN.—I remember the case of a negro woman who had received a compound comminuted fracture near the ankle joint. She was conveyed to the Bay View, and chloroform administered previous to amputation. After administering ʒss, respiration suddenly ceased, and all efforts failed to restore her.

Dr. HOWARD.—There is a great difference in the respiration ceasing, or when the tongue only falls back, for we can draw it forward, but if the muscles of respiration are paralyzed, we can do but little.

Dr. FAY.—I like chloroform better than ether, because it does not so frequently produce headache, nausea, or vomiting, and is safer. After injuries, I usually give it as soon as possible without regard to shock. On one occasion I had a patient put on the table for an operation on his hand. One assistant gave the chloroform while another watched the pulse. The heart stopped suddenly, and the man died apparently without a cause. In another case the pulse stopped similarly, and but for artificial respiration would never have returned. In obstetrics chloroform will bring the pains to the normal standard if they be irregular.

Dr. NOEL. The tenth pair or pneumogastric nerve

supplies both lungs and heart, so if one is paralyzed the other would be also.

Dr. TANEYHILL. I think the cause of bad effects is that some surgeons give it too rapidly thus speedily saturating or injecting the tissues. I have found it to be an excellent remedy in delirium tremens. To settle the question of its danger, it would be necessary to inquire whether the mortality from operations has been increased. Some in Europe and this country think the proportion has been greater, and I am inclined to the same opinion.

Dr. NOEL. The statistics should be very carefully selected as operations have been greatly multiplied since the introduction of chloroform, and many cases are now operated on which were formerly considered necessarily fatal, and no attempt made to relieve them. Internally I have found this to be an excellent remedy in delirium tremens, spasmodic colic and in the passage of gall stones I have given ℥j every two hours.

Dr. WILLIAMS. I have found it good in acute mania. Squibb's is the only make fit for inhalation. I think the subject of mortality is of little moment in considering its use in cases where it is positively required. I find that by giving it in milk it does not strangle the patient as it is apt to do in any other menstruum.

Dr. NOEL. I think the poisoning of the muscular walls of the heart and chest the efficient cause of the cessation of respiration in these cases, and it is retained carbonic acid which causes the poisoning.

Dr TANEYHILL. Speaking of the mortality, Druitt says it has been doubled since the introduction of chloroform: Arnott and Fenwick coincide in this statement. Coates, of Salisbury, says it has decreased.

EDITORIAL DEPARTMENT.

PERISCOPE.

Mental Fitness of Will-Making.

Dr. SHRADY, in the *Medical Gazette*, says: In cases of mania, if the faculties be all disordered, the will will be void—if only a single faculty, as in monomania, it is not fully settled what the result would be. Weight ought perhaps to be given to the suggestion that monomania is only the incipient manifestation of a disorder which will disturb all the mental powers; at all events, it is settled that, should the delusion affect the very subject matter of the will, then the instrument is void.

The most difficult cases occur when the mind is impaired by disease or old age. The questions arising in these cases are the more troublesome, because mental diseases are generally slow and gradual—the outward appearance of the diseased person does not change; and, although the mind is weakened, the memory of the past is unimpaired. The great test of capacity is an examination of the judgment and the strength of the will; and to inquire whether the sensibilities are unnaturally affected. Thus, if a testator makes an unnatural will; or cannot count money, and readily submits to the dictation of others, and abandons to them the management of his property; or if he weeps without adequate cause, the inference may well be drawn that his mind is impaired, according to the presence or absence of these appearances.

Deafness will also be important to repel any presumption that he may have heard the will read to him. The above facts may not prove a total loss of intellect, but may only show that however greatly it is impaired, capacity to make a will may still exist, if the testator is left to himself. If, however, there be any suspicious circumstances attending the execution of the will, showing attempts to practise on the testator's weakness, then it will be void, unless satisfactory explanation is given to the court. Some of these suspicious circumstances are, that the will is in the handwriting of the principal legatee, and that such legatee holds a fiduciary relation to the testator. Another suspicious circumstance is, that the will has been concealed from the relatives, or that it differs greatly from former wills, or from previous or subsequently explained intentions. Such circumstances can be explained by clear proof of the intentions of the testator, such as that he gave instructions to the attorney who drew the will, or that the will was distinctly read over to him; and even these will not always do where there is proof of fraud.

From the opinion of Judge Denio, in the Hopper Will Case, (33 N. Y. 619) it seems that on questions of testamentary capacity, courts should be careful not to confound perverse opinions and unreasonable prejudices with mental alienation. The true test of insanity affecting testamentary capacity, aside from cases of dementia (or loss of mind and intellect) is mental delusion. A person persistingly believing supposed facts which have no real existence

against all evidence and probability, and conducting himself upon the assumption of their existence, is, so far as such facts are concerned, under an insane delusion. If a testator, at the time of making his will, is laboring under any such delusion, in respect to those who would naturally have been the objects of his testamentary bounty, and the court can see that the dispository provisions were or might have been caused or affected by such delusion, then such instrument is not to be deemed his will. The great difficulty which arises in all cases of mental diseases, as seen from the above cases, is to fix some standard by which the sanity or insanity of the testator may be satisfactorily determined. This is a difficulty which seems to me almost insurmountable, for the simple reason that it is impossible for the most skillful experts to determine always where insanity begins and sanity ends.

I find in Edmond's Select Cases, Vol. 1, p. 35, a definition by the Judge which I will insert in conclusion of this paper, as it seems to me to be quite a correct one, looking at it from a logical point of view. A sane man is one

1. Whose senses bear truthful evidence.
2. Whose understanding is capable of receiving that evidence.
3. Whose reason can draw proper conclusions from the truthful evidence thus received.
4. Whose will can guide the thought thus obtained.
5. Whose moral sense can tell the right and wrong growing out of that thought.
6. And whose act can at his own pleasure be in conformity with the action of all these qualities.

All these things unite to make sanity, the absence of any one of them makes insanity.

The Diagnosis of Aneurism.

A clinical lecture on this subject, delivered by Mr. PAGET, F.R.S., is given in the *British Medical Journal*.

In speaking of the diagnosis of abdominal aneurisms, Mr. Paget said that the difficulty in these cases was twofold; for, *first*, there were many pulsating tumors not aneurisms, and, *secondly*, aneurisms were occasionally met with which, at the time of examination, did not pulsate. In the case under consideration, the second source of error did not interfere, for the tumor pulsated strongly. The pulsating tumors from which aneurism was to be distinguished, were arranged under the heads of *medullary cancer, arterial vascular tumors, tumors growing from bone*, and *enlarged lymphatic glands*, or any other tumor seated upon or around a large artery; and the following points were insisted upon as furnishing, collectively or singly, the means for arriving at a correct conclusion. The *character* of the pulsation: the pulsation of an aneurism was described as "firm, full, and strong," while that produced by any of the other pulsating tumors was said to be weak and soft. Mr. Paget laid great stress on this difference, and considered it a most important aid to diagnosis. The *direction* of the pulsation: the "expanding pulsation" of an aneurism was to be carefully distinguished from the merely "forward push or throb" communicated to the fingers by a tumor seated on an artery; if a tumor, such as a mass of enlarged glands, however, *surrounded* an arterial trunk, Mr. Paget considered that it might be quite impossible to determine whether an aneurism existed or not, for the pulsation in such a case would be truly expanding in all directions. *Pain* of a "rending" character, and coming on in paroxysms, was mentioned as a valuable sign of aneurism, and probably denoted the occurrence of rapid increase in size. The existence of a *loud rasping bruit* over the tumor and along the artery above and below was said to be a symptom of some value when present, although its absence, as in the patient under consideration, by no means negatived the existence of aneurism, for a soft *bruit* was heard in many cases of vascular tumor.

Mr. Paget alluded to another class of cases in which the diagnosis of abdominal aneurism was sometimes made, and in which there was not only no aneurism, but no tumor of any kind. In some persons, a large artery, generally the abdominal aorta, pulsated very strongly; and it was this strong pulsation of a healthy vessel that was mistaken for aneurism. It occurred, Mr. Paget observed, chiefly in hysterical women, or nervous men; sometimes in association with pains in the back, which render the resemblance to aneurism still closer; or in persons in whom the bodies of the lumbar vertebræ were unusually prominent, the head of the pancreas enlarged, or the colon distended; and, lastly, a certain number of cases were found to be connected with incessant nausea and vomiting in nervous people—a case being mentioned of a woman who was supposed by several observers to be the subject of abdominal aneurism. She was suffering from excessive and continued sea-sickness, and, in fact, died of exhaustion from this cause; and Mr. Paget had an opportunity of confirming his previous opinion, that no aneurism existed. The absence of the lateral or expanding pulsation in these cases of excessive arterial pulsation was mentioned and insisted on. The lecturer alluded to one case in which a phantom tumor of the rectus abdominis muscle was superadded to a pulsating aorta. In this instance, the diagnosis was at length made by placing the patient under chloroform, when the tumor disappeared completely.

Mr. Paget added that the same state of excessive pulsation was sometimes noticed in other arteries,

especially the subclavian and the carotid. If the patient happened to possess a cervical rib, over which the pulsating subclavian passed, as in a case lately under Mr. Paget's care, the resemblance to aneurism might be very close. The simulation of carotid aneurism was said to be most deceptive when the internal carotid was elongated and tortuous in old persons, and when the naturally somewhat bulbous condition of the lower part of this vessel was more than usually marked.

New Preventive Treatment of Abortion.

Women apt to abort, do so usually at or about the epoch of the menstrual discharge, and in consequence of the congestion which even in pregnancy, recurs at these epochs. Dr. DE BEAUFORT mentions in the *Bulletin de Thérapeutique* the objections to attacking these congestions with repeated venesections, and then narrates five cases in which he had flattering success by using bromide of potassium for about eight days before and after the epochs, during the whole pregnancy. The dose was from 30 to 60 grains a day. The effect of the drug on the fœtus was to reduce its movements, while the heart was not weakened. After birth the children cried little for a day or two, and seemed little inclined to take the breast. If fed with a spoon, the act of deglutition was very slow. These symptoms all disappeared in 24 or 48 hours.

It seems to us that in view of the very obvious effects of long continued doses of this drug on the mental powers, that its use in this way should be ventured upon with hesitation, lest the intellectual capacity of the child should be permanently injured, a question to which Dr. De Beaufort does not refer.

Reviews and Book Notices.

NOTES ON BOOKS.

A small pamphlet war continues on the subject of the last illness of Dr. Alden March. The latest missive we have seen is "The Strange Defense of Dr. James H. Armsby, against the Criticism of his Report, considered by Charles A. Robertson, A. M., M. D." We should have been glad to have said that this last brochure shows some signs of putting this quarrel (disagreeable to all concerned) in a more favorable light, but it does not, and the remarks of Dr. Robertson, on p. 7, to the effect that a post-mortem examination is a "shocking profanation of the remains of the dead" would be rank nonsense in a medical man, were it not evidently something very much less excusable. We do not personally know a single party concerned, and our opinions are formed from the record only. Hereafter this journal shall contain no further reference to the controversy.

Dr. Henry J. Wiesel has published at Wheeling, West Virginia, a book of forms for prescription papers and clinical records. Such memoranda are often of much importance to a physician, and the plan he suggests is a good one.

BOOK NOTICES.

The Preventive Obstacle, or Conjugal Onanism. The dangers and inconveniences to the Individual, to the Family, and to Society, of Frauds in the accomplishment of the Generative Functions. By L. F. E. BERGERET, M. D. Translated from the third edition by P. DE MARMON, M. D. New York, Turner & Mignard, 1870. 1 vol. 8vo. cloth, pp. 182. Price $1.50.

Dr. Bergeret, who is a Swiss physician, of reputation as a medical writer, has, in this little work, explored one of the many directions in which the sexual relations are misused. As is natural and almost inevitable, when one devotes particular attention to one class of sexual diseases, the importance they acquire becomes exaggerated, and doubtless most readers will be of opinion that Dr. Bergeret has fallen into this snare. Nevertheless, as the fashion of the day undoubtedly is to underrate the results of sexual erethism, it is a fault which, if it exists, we can pardon.

The author traces a connection between a number of diseases of the sexual organs in both sexes to imperfect or fraudulent coition, and believes that these habits lead to an arrest of the increase of population, and to general profligacy. No one who has a wide practice in an American city, and has directed unprejudiced attention to these cases, can doubt for a moment that this opinion is abundantly sustained. It is too well known to need any hesitation in saying it, that conjugal frauds are very common in this country, and very few people are aware of their deleterious consequences. This work therefore, is timely, and when we add that it is temperately written, with nothing sensational or indecorous in it, but in a calm, scientific tone throughout, we have said enough, we hope, to direct to it the attention of the profession.

Manual of Chemical Examination of the Urine in Disease, with brief directions for the examination of the most common varieties of urinary calculi. By AUSTIN FLINT, JR., M. D., New York, 1870. 1 vol. 8vo. pp. 75. For sale by Claxton, Remsen & Haffelfinger. Price, $1.25.

A manual of this kind has long been needed, and certainly no one could have been chosen better qualified to prepare one than Prof. Flint, Jr. He commences with some remarks on the physiology and characteristics of normal urine, its variations and constituents. Two chapters follow, one on qualitative examination of the secretion, the second on its quantitative analysis. The principal tests are given in clear language, and the apparatus illustrated by wood cuts. A very complete table for chemical examination is appended.

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S. W. BUTLER, M. D., D. G. BRINTON, M. D., Editors.

☞ Medical Society and Clinical Reports, Notes and Observations, Foreign and Domestic Correspondence, News, etc., etc., of general medical interest, are respectfully solicited.

Articles of special importance, such especially as require original experimental research, analysis, or observation, will be liberally paid for.

☞ To insure publication, articles must be *practical, brief* as possible to do justice to the subject, and *carefully prepared*, so as to require little revision.

We particularly value the practical experience of country practitioners, many of whom possess a fund of information that rightfully belongs to the profession.

The Proprietor and Editors disclaim all responsibility for statements made over the names of correspondents.

PUBLIC SQUARES IN CITIES.

The inhabitants of this city have been exercised in mind of late, where to locate their proposed new public buildings. Those who have visited Philadelphia, know that there are a number of public squares located in the older and now the central portions of the city, some one of which it was determined must be chosen as the site for the public edifices. Independence square was strongly urged by one party, Penn square by another, and Washington square by a third. The impropriety of building upon *any* of these open spaces, hitherto wisely guarded against any such use, seems to have occurred to very few. Yet not only will the beauty and symmetry of the city be injured but doubtless to some extent its character for salubrity, will be impaired by thus shutting up those "lungs of the city," the public squares, which in its first foundation, the far-seeing mind of William Penn planned, and to which he justly attributed so much importance.

There is no question that the health of our population has been greatly benefited by these squares, both directly as a means of ventilation, and indirectly as a pleasant resort for children and invalids. To use them for any other purpose than that for which they were originally designed, is a great and near-sighted mistake. They should be kept forever free from structures of any kind, and remain at all times open to the public. The walks should be laid in cement, so that the frost and rain will not render them impassable, as is now the case, and every effort should be used to secure from them the full amount of benefit which experience has abundantly proved, can be obtained from their free use.

There are plenty of vacant lots along Broad street, which can be obtained at moderate rates, and which would be equally suitable for the edifices in question. We wish to direct attention to the hygienic value of our squares, and preserve them for future generations, for a day when they will be even more needful than they now are, as population becomes more dense. While other cities are widening their streets, and giving pure air and sunshine more free access, at great cost and labor, we coolly talk of shutting up our few avenues to these healthful blessings. Certainly such policy as this is unworthy the intelligence of this community, and must be condemned by every educated and impartial mind.

DR. VINTON ON PHYSICIANS.

A few weeks ago we quoted some remarks from the Rev. Dr. Vinton's address at the commencement of the Bellevue Hospital Medical College, in which that eminent divine censured the want of sympathy and of respect for religion and its ministers, which, he asserted, are only too frequently revealed by members of our profession. It is so much the interest of the physician to pretend sympathy where he does not feel it, that we think in that respect the speaker was at fault, as a general rule. But we fear he was right in accusing medical men as a body, of a want of respect for religious instructors. We have seen it painfully evidenced even in medical journalism, as well as in the lecture room, and over the dissecting table. Lecturers go out of their way to sneer at the doctrine of immortality and the resurrection; demonstrators paraphrase Laplace in his famous saying, and boldly state they have searched through the human body, and found no trace of soul; and journalists have attacked the whole clerical profession and pronounced them incapable of forming a correct opinion even on questions of morality, because, forsooth, here and there some minister has given a certificate to a quack doctor. In these respects there is, unfortunately, some occasion, which we cannot deny, for Dr. Vinton's remarks; and we hope those who in a manner represent the profession before the public, will take warning by his seasonable admonition to refrain in future from such ill-judged and unnecessary reflections, which are disparaging not only to those who utter them, but to the whole body of practitioners.

A GOOD APPOINTMENT.

Dr. D. Hayes Agnew, so long and favorably known as a surgeon and instructor on anatomy in this city, has been appointed Professor of Clinical and Demonstrative Surgery in the Medical Department of the University of Pennsylvania. A more capable and efficient instructor could not have been found.

Dr. Agnew came to this city about the year 1853, and soon after took charge of the Philadelphia School of Anatomy, where he taught the largest private classes ever assembled, either in this country or in Europe. In 1860, he was elected one of the Surgeons of the Philadelphia Hospital, and soon afterwards Surgeon to Wills' Hospital. In 1864, he was elected Surgeon to Pennsylvania Hospital, and more recently to the Orthopœdic Hospital. For several years past he has been Demonstrator of Anatomy and Clinical Lecturer in the Medical Department of the University of Pennsylvania.

Notes and Comments.

BULLETIN OF RECENT THERAPEUTICS.*

By Geo. H. Napheys, M. D.

No. 5.

In order to enable the compiler of this bulletin to do justice to American Therapeutics, he invites directly, from experienced practitioners, contributions for this column. He desires brief but specific details of tried methods of treatment, *i. e.*, the exact combination of remedies employed; the doses; frequency of administration; contra-indications, etc., as well as the dietetic and hygienic management advised. He wishes not merely therapeutical novelties, but also a record of the negative and positive results of experience with either well established or newly suggested medical procedures.

While the compiler intends to collate widely and largely from foreign and American periodicals and monographs, he would like to draw upon the accumulated fund of unpublished therapeutical facts in the hands of many readers of this journal, whose co-operation, therefore, he confidently seeks.

Infantile Therapeutics.

(CONTINUED FROM BULLETIN NO. 2.)

2. Management of Pertussis.

JOHN L. ATLEE, M. D., LANCASTER, PENNA.

47. ℞ Acidi hydrocyanici diluti, ♏j.
Syrupi simplicis, f.℥j. M.

A teaspoonful for a child six months of age, to be given at first morning and evening. If no unpleasant symptoms, dizziness, or sickness result, in forty-eight hours, the dose is to be given ter die.

One drop of the acid should be added to this recipe for each year of the child's age above one year. Our author has never given this remedy more frequently than four times a day.

DR. BARTLETT.

Our author records in the *American Practitioner* for February, 1870, his experience with the *iodure of silver* in whooping cough. He has used this remedy for twenty-five years, and has found that it decidedly controls the frequency and violence of the paroxysms within a week and often within a few days after commencing its use. The formula he employs is as follows:

48. ℞ Argenti iodureti, gr. x.
Sacchari albi, gr. lxx.
Pul. gummi tragacan., gr. viij-x. M.

Rub well together, moisten with a few drops of water, make pill mass, and divide into eighty pills. Each pill will represent one-eighth of a grain of the salt. One to be taken, three to five times a day by a child two or three years old.

Our author generally gives them immediately before or after meals, and if the paroxysmal cough be severe, one also half way between meals. For children of from six to ten years of age two pills are to be given at a dose and to be continued in this manner until the cough has disappeared. The remedy requires no watching, is readily taken by the youngest children and does not interfere with the digestive functions. It is safe, pleasant, and effective.

J. HUGHES BENNETT, M. D., F. R. S. E., PROF. IN THE UNIVERSITY OF EDINBURGH.

Our author considers that whooping cough is one of those disorders that has a natural course which is little affected by remedial measures. The efforts of the physician should be directed towards keeping the surface warm, preventing exposure to cold winds and alternations of temperature, and supporting the strength by good diet and a little wine. When the disorder becomes chronic, change of air is of undoubted service in removing the disease.

DR. GOLDING BIRD, LONDON.

49. ℞ Aluminis, gr. xxv.
Extracti conii, gr. xij.
Syrupi rhoeados, f.℥ij.
Aquæ anethi, f.℥iij. M.

A medium-sized spoonful every three hours in the second or nervous period of the disease, after the subsidence of inflammatory symptoms, and when the patient is harrassed and exhausted by the attempts to get rid of the copious bronchial secretion. Under these circumstances, our author considers alum, which he administers according to the above formula—the most satisfactory of all remedies affording the speediest and most marked relief.

*Entered according to Act of Congress, in the year 1870, by Geo. H. Napheys, M. D., in the Clerk's Office of the District Court for the Eastern District of Penn'a.

N. B.—This copyright is not intended to prevent medical journals publishing these articles, but only their being issued in book form.

BEDFORD BROWN, M. D., OF ALEXANDRIA, VA.

Our author recommends the *oil of turpentine* in the treatment of certain complications of whooping cough. The remedial influence of this agent is that of a soothing, but active expectorant, reducing inflammatory action, tranquilizing irritation, and diminishing copious and exhausting discharges. The morbid complications of pertussis to which the turpentine treatment is more particularly adapted, are infantile, remittent, or gastric fever, a peculiar irritative form of continued fever, bronchitis, hæmoptysis, convulsions, dysentery, and enteritis. The doses our author employs, and the manner and frequency of administration by which he has obtained his result, he does not record.

JOHN COOPER, M. D., PHILADELPHIA.

Dr. C. has used, with excellent success, the *tonka bean* in pertussis. He was led to its employment by the fact that it contains a large per centage of *coumarin*, the active principle of the clover tops—*trifolium mellilotis*—recommended for the affection. He gives the *fluid extract* in from five to eight drop doses every three hours, for a child of five years. It affords marked relief to the paroxysm of coughing.

M. LE DR. DAVREUX, OF LIÉGE.

The following formula is recommended as a prophylactic and abortive remedy in whooping cough:

50. ℞. Extracti aconiti, gr. j.
Aquæ laurocerasi, f.℥j.
Syrupi ipecacuanhæ, f.℥j.
Mucilaginis acaciæ, f.℥vj. M.

Dose—f.℥j-ij every hour for a child, and f.℥ss for an adult.

J. LUDLOW, M. D., CINCINNATI, O.

Dr. L. has found in *chestnut leaves* (castanea vism) a valuable remedy for this disease. The spasm is relieved in from five to ten days, and in about two weeks the little sufferer ceases to whoop, and goes on to a speedy recovery. He employs an infusion made as follows:

51. ℞. Castaneæ viscæ, ℥ss.
Aquæ bullientis, ℔ Oj. M.

Add to this a pint of cold water. Sweeten with white sugar to make it palatable and administer cold. As much should be given during the day and evening as the patient can be induced to take. By offering it as a drink in place of cold water the child soon learns to like it, and there is no trouble in getting a sufficient quantity taken to produce the desired result.

DR. MACKELCAN, CANADA.

52. ℞. Potassii sulphureti, gr. xxiv.
Syrupi, f.℥j.
Aquæ destillatæ, f.℥iij. M.

A tablespoonful ter die.

The dose should be increased one grain for each year up to four years of age, and after that half a grain additional for each year, the doses being diluted in proportion to the quantity of the salt.

The beneficial effects of the medicine are not perceived for five days, when the intervals between the paroxysms of cough become longer, and after that their violence diminishes from day to day, until at the end of ten or fourteen days it is seldom necessary to pursue the treatment further.

As the drug easily spoils by keeping, it is important to have it fresh. If it dissolves perfectly in the syrup and water, and the mixture is of a greenish color, it may be relied on; but if their is any sediment, it has been decomposed by exposure to air and becomes a sulphate.

DRS. MEIGS AND PEPPER, PHILADELPHIA.

53. ℞. Aluminis, ℈ijss.
Syrupi zingiberis,
Syrupi acaciæ,
Aquæ, aa. f.℥j. M.

A teaspoonful ter die in every five or six hours.

This recipe when prepared with good syrups tastes very much like lemonade, its agreeable flavor rendering it acceptable to children.

Our authors more generally employ alum in combination with belladonna. They have obtained better results from the following formula than any other ever employed:

54. ℞. Extracti belladonnæ, gr. j.
Aluminis ℥ss.
Syrupi zingiberis,
Syrupi acaciæ,
Aquæ, aa. f.℥j. M.

A teaspoonful morning noon and night, also once in the night if the cough be troublesome.

55. ℞. Potassæ carbonatis, ℈j.
Cocci, ℥j.s.
Sacchari albi, ℥j.
Aquæ, f.℥iv. M.

Desert spoonful ter die to a child a year old.

This mixture has long enjoyed a high reputation in this country and abroad. Our authors believing its efficacy to be due to the carbonate of potash, ordinarily omit the cochineal. This recipe together with the alum and belladonna mixture given above, are the most useful agents we have to keep down the violence of the disease.

GEO. W. SMITH, M. D., ALABAMA.

56. ℞. Syrupi scillæ compositi, f.℥j.
Antimonii et potassæ tartratis, gr. j.
Tincturæ tolutanis,
Tincturæ cocci, aa. f.℥ij.
Mellis, f.℥ij. M.

A teaspoonful every two hours for a child three years of age; or a smaller dose at shorter intervals.

Our author has tested this remedy in many cases characterized by severe paroxysms, and with the most happy results.

J. LEWIS SMITH, M. D., PROF. BELLEVUE, HOSPITAL COLLEGE, NEW YORK.

In the catarrhal stage the treatment of pertussis

should not differ from idiopathic catarrh. Mild counter irritation to the chest, and, if there be accelerated breathing, the oil silk jacket may be applied, while demulcent, laxative and gentle expectorant mixtures are employed internally. Care should be taken not to reduce the strength nor impair the general health.

In the second stage, that of convulsive cough, therapeutic measures are most beneficial. The three medicines most in favor with the profession at the present day are *hydrocyanic acid, belladonna*, and *bromide of ammonium*. In the opinion of our author, the treatment by belladonna is the most successful.

The first dose of belladonna should be smaller than that which will prove remedial. The child requires a larger dose of belladonna, however, than the adult in order to produce the same effect.

Our author recommends the following pills directed by Trousseau:

58. ℞. Extracti belladonnæ,
Pul. belladonnæ folii, aa. gr. ij. M.
For xx pills.

One of the pills (containing a tenth of a grain each of the extract and of the leaves of belladonna) should be taken in the morning when the stomach is empty, and a second on the following morning. For children over four years, the strength of the prescription is to be doubled, (*i. e.*, gr. 1-5 of each ingredient in every pill.) If the number of paroxysms be diminished or the cough rendered less severe, the same dose is to be administered each day. If however, there be no improvement, two pills are to be administered on the second morning, three on the next and so on until an appreciable effect is produced. Trousseau considered it important to give at one dose, whatever belladonna is administered during the day; divided doses are less effectual.

The dose which produces amelioration of the symptoms is to be repeated daily during the succeeding six or eight days. Then, if the improvement continue, the dose is to be diminished one pill per day back to the first dose, but if the cough increase, it is to be again increased. After the entire cessation of the spasmodic cough the administration of the remedy is to be kept up for six or eight days. Instead of belladonna, atropia may be used in the same manner in solution.

58. ℞. Atropiæ sulphatis, gr. 1-10.
Aquæ, f.℥ij. M.

A teaspoonful for young children, employed as directed for the belladonna pills. Older children require a proportionately larger dose.

59. Our author commonly employs the *extract of belladonna* in one grain pills. For an infant one year old, one pill is dissolved in eight teaspoonsful of water; three years, in four teaspoonsful. A teaspoonful to be given once, or if there be no appreciable effect, three or four times daily. If there be no modification of symptoms an additional half spoonful should be given on the third day. Afterwards a still further increase will probably be required.

A Physician Justly Censured.

On the 5th of April, the jury at a Coroner's inquest on the body of James O'Neal, New York City, found a verdict "that deceased came to his death by congestion of the brain, consequent upon a heavy dose of morphine, too frequently repeated, prescribed by Dr. John O. Bronson for delirium tremens. We further censure Dr. Bronson for being in collusion with Henry E. Martin, druggist, in writing prescriptions contrary to the usual and well-known nomenclature; we further censure said Martin for giving orders to his clerk not to reveal such terms." The papers in the case have been given to the District Attorney.

It appeared that Dr. Bronson wrote for morphia under the name "essentia somnolentiæ," and had other terms understood only by himself and Mr. Martin, so that he might be sure to have his percentage from the druggist. We have known this to be done in this city by physicians whose standing and wealth should have raised them above such meanness, if their sense of propriety did not. It is a most unbecoming transaction, and deserves severe censure.

Dr. Tardieu as a Politician.

Dr. Ambrose Tardieu is well known all over the world as an expert and a teacher of forensic medicine. But he is not so devoted to science that it prevents him from being a violent Bonapartist. When Prince Pierre Bonaparte murdered Victor Noir, the first physician summoned was a general practitioner in the immediate vicinity. He was replaced in a few hours by Dr. Tardieu in his official character as expert. Dr. Tardieu declined all assistance or information from the general practitioner and made up his report solely from his own observation. More than this, his expressions and reports were plainly intended—so, at least, all who differ from him in politics say—to shield the Prince from the results of his crime.

On his appearance in the lecture room after the trial, the students hooted and hissed him to such a degree that he left the room, and said he would resign his chair. Since then the school has been closed till the first of May by the Government.

Medical Education.

At the formation of the Alumni Association of Jefferson Medical College, Professor Gross appealed to his auditors to verify a statement he was about to make—that the course of medical education

this city had not one inch progressed within the past fifty years. The remark was received with assenting applause. In no whit are we in advance of the last half century. The course of study is too restricted, and the sessions are too short, and he was prepared and authorized by his associates in the faculty to say, that with corresponding action on the part of the University of Pennsylvania, they would consent to the prolongation of the term of study, and an elevation of the standard of attainment upon which the diplomas shall be contingent. This also was applauded by those present.

Now, we would like to inquire whether *independent* action in the right direction is not more honorable than the continuance of an acknowledged evil, because others insist on it? Shall nobody be virtuous because there *are* cakes and ale? "I will be honest if you are," is neither a brave nor a lofty principle. Let medical teachers show some higher rule of action than this, if they expect to bring about any reform.

Dietetic Articles.

A new food for infants, called Nestle's Lacteous Farina, made of condensed milk, sugar, and ground dried bread, has been introduced to our notice, and having given it a trial, we have found it a very palateable and healthful article of food for infants.

For medical purposes we believe we can recommend the Bourbon whiskey manufactured by Pogue, Duke & Co., Maysville, Ky., as purer than any other with which we are acquainted. It is highly recommended by the Surgeon General, U. S. A., and by Dr. Roberts Bartholow, who have examined the peculiar method of distillation adopted by that firm, and consider that it secures unusual purity and freedom from acrid oils. Medical men who wish a first class article will do well to try this.

Compressed Air.

The St. Louis journals report that the effect of the compressed air upon the men working in the caissons of the main piers of the bridge now building across the Mississippi, at that city, is highly injurious. Over fifty of the men engaged in filling in the air chambers with cement have been prostrated by partial paralysis. In some instances a few days' rest has been sufficient to restore the workmen to health; but recently four of the men have died, and forty are still in the hospital, some very low, but the majority in a fair way of recovery. At the Coroner's inquest held upon one of the persons who had died, a fellow-workman testified that the men who observed strictly the sanitary regulations established by the engineers would not be injured, and that he never experienced any serious effects from the compressed air. The decease of his companion he attributed to intemperate habits. The use of spirituous liquors will undoubtedly weaken the lungs and render them unable to resist the pressures of two or three atmospheres.

Chloroform.

Our cotemporary, the Boston *Medical and Surgical Journal*, is opposing most determinately any further employment of chloroform as an anæsthetic, on the ground of its dangerous character. The British *Medical Journal* regards the position of the Boston *Journal* quite indefensible, and in a recent number of the *Bulletin de Thérapeutique*, M. Sedillot, a very high authority, asserts that *pure* chloroform never killed anybody, when properly administered! We do not think that the locality of the discovery of ether influences our cotemporary, but the experience there, must have been singularly discouraging. One writer urges that deaths by chloroform be considered homicides!

New Tests for Phosphorus and Sulphur.

A German chemist, M. Schoen, suggests the following new tests: To detect phosphorus in organic or inorganic matter, mix the solid substance with half its weight of finely-divided magnesium, and heat in a glass tube closed at one end. The mixture becomes phosphorescent, the sides of the tube will be covered with red phosphorus, and another portion of phosphorus will combine with the magnesium to form the phosphide of that metal. After cooling, a few drops of water will evolve phosphureted hydrogen. As the magnesium will not combine with sulphur, the search for this element can be made in the same mixture by sodium or potassium. All compounds of sulphur, whether organic or inorganic, are decomposed by potassium and sodium to form alkaline sulphides. Place the substance to be tested in the bottom of a small glass tube, put in a few pieces of sodium, and add another layer of the substance, and heat gently. After cooling, project the contents of the tube into acidulated water, when a disengagement of sulphureted hydrogen will at once betray the presence of sulphur, or the nitro-prusside of sodium will afford a purple coloration if any sulphur be present. These two tests are probably the most delicate of any hitherto suggested for the detection of phosphorus and sulphur.

Correction.

By a typographical error, which our readers will doubtless have corrected for themselves, the name of Dr. HORATIO R. STORER in the advertisement of the *Journal of the Gynæcological Society* of Boston, was spelled Horatio R. Stover. The Dr. is too well known to be masked by an accidental *alias* of that kind.

University of Louisiana.

On the 25th ult. the commencement exercises of the medical department of this University took place at Lyceum Hall, New Orleans. There were 74 graduates in medicine, chiefly from Louisiana and the adjacent States.

Prof. S. M. Bemiss, M. D., delivered the salutatory, from which we quote the following well-timed remarks:

"A stipulation of the highest importance to the successful prosecution of your profession is a consistent, unshaken faith in its truth. As no shipmaster who loses confidence in his compass and refuses to submit to its guidance, ever makes a successful voyage to a distant port, so no doubter ever attains high rank in his profession. I know very well what feelings of belief, hope and enthusiasm at this time fill the breasts of most, if not all of you. But you are now in the position of untried soldiers, who, full of impetuosity and imaginary bravery, wonder that their leader should suppose it necessary to say anything for their encouragement. How often it is, that at the fierce shock of battle the inexperienced learn for the first time to realize their own weaknesses.

"Unbelief in medicine is not an infirmity common to young physicians. It more often occurs among senior members of the profession, especially among that class of men who, as they grow older, become cynical, and are afflicted with doubts as to whether any good thing was ever created; or if created good, whether all things have not degenerated so that nothing remains deserving their confidence. But it is sometimes the offspring of the young practitioner's first signal failure. The lessons of defeat are very differently applied. The strong and resolute nerve themselves for other conflicts; the weak and speculative are overwhelmed with doubt and distrust."

Test for Arsenic.

A new and very delicate test for arsenic has been discoverd by Bettendorf. Its sensibility is so great that it is said to be capable of detecting one part of arsenic in a million parts of solution; and the presence of antimony does not affect it. In order to apply this test, the arsenious, or arsenic liquid is mixed with aqueous hydric-chloride (hydrochloric acid), until fumes are apparent; thereupon stannous chloride is added, which produces a basic precipitate, containing the greater part of the arsenic as metal mixed with stannic oxide.

A Snake Story.

A correspondent in Tennesse sends us an account of an entozoon (?) apparently a snake, said to have been found by a farmer and his son in cutting up an ox which had died of disease. These witnesses, our correspondent states, are quite trustworthy. But here, as in every similar story we have ever heard, the sources of error are so numerous and obvious, that the account could not be received as of any scientific value.

Benefits of Good Sewerage.

Any one who is sceptical about the practical benefits of hygienic measures should go to Leek, in Staffordshire, England, and be converted. Sewerage works have been in existence for the last nine years in that town; and during this time the annual rate of mortality has decreased from 29 to 24 per 1,000, and the average age of the dead has increased by nearly one-third. If there be no sources of fallacy in the calculations, these facts give a proof of the good results of efficient sewerage as instructive to us all as it is important to the inhabitants of Leek.

Prevention of Premature Interments.

Mr. Elliott of this city, has presented a bill to the Pennsylvania Legislature to prevent premature interments, by requiring forty-eight hours to elapse after the supposed death of a person.

In connection with this subject, a paper of this city suggests very properly, the impropriety of placing the bodies of persons supposed to be dead in ice almost as soon as they have apparently ceased to breathe.

The Nemesis of Fashion.

Professor Blackie has been lecturing to the Edinburgh people on beauty. He wished women could be prevailed upon to dress according to the laws of reason, and not according to the practice of unreason, which constitutes the monstrous idea that is called fashion, and which is worshiped in the very glaring, glittering, and vicious place called Paris.—If they could be prevailed upon to dress themselves in spite of fashion, they would dress well.

Protection of Lead Water Pipes.

Dr. Schwarz, of Breslau, notes a simple method of protecting lead pipes from the action of water, by forming on the inside surface of the pipes an insoluble sulphide of lead. The operation, which is a very simple one, consists in filling the pipes with a warm and concentrated solution of sulphide of potassium or sodium; the solution is left in contact with the lead for about fifteen minutes.

Marriage of Cousins.

We have printed several articles on this subject, and shall be glad to print others, but to secure insertion they must be expressions of *facts*, carefully observed and recorded, not of opinions only, as they too often are.

New Sydenham Society Publications.

Mr. Fougera of 30 North William street, New York, has Caspar's Forensic Medicine (1st vol.), and a volume of selected monographs, published by the above Society for sale. He will sell them cheap.

Correspondence.

DOMESTIC.

Hydatids of the Uterus.

EDS. MED. & SURG. REPORTER:

I was called to see a young German woman (married six months) suffering from dropsy of the extremities and labia, with great and painful distention of the latter. Suppression of the urine and feverish condition of the system. Stated she was "three months gone in the family way," and was afraid she was going to miscarry.

Upon inquiry I ascertained that she had suffered during the whole term of her supposed pregnancy with a sanguineous discharge from the vagina until a week previous to my visit, when it suddenly ceased, and the swelling of the limbs commenced.

Warm fomentations to the vulva and absolute rest in the recumbent posture, with an anodyne, entirely relieved the pain. Diuretics were then resorted to, without any relief whatever. On the third day being sent for, in a hurry, I found her with regular bearing down pains, and upon examination found the mouth of the womb dilated to the size of a silver dollar, with a firm though yielding mass, presenting which gave me the impression that it might be a premature case of "placenta praevia." Gave fluid extract ergot ʒj, when in about ten or fifteen minutes she expressed a desire to void urine, and while sitting upon the vessel exclaimed "oh its come," upon examining the contents, I found it to consist of a firm fleshy substance, resembling a placenta about an inch and a half in thickness, and five inches across, but without the umbilical cord. This substance, which was fibrous in character, was completely studded on one side with numerous cysts varying from the size of a pea to that of a large grape, besides which were about three pints of the same attached to a membranous substance, which when held up, looked very like clusters of grapes. These cysts were filled with a transparent watery fluid. A few minutes afterwards, a half pint more followed the first discharge, and the woman feeling perfectly comforatble, I took my departure.

This was 3-30 P. M. At half past ten I was recalled with the intelligence that my patient was crazy, and it took four persons to hold her in bed. Upon reaching her side, I found her in violent hysterical convulsions, foaming at the mouth, staring eyes, florid complexion, rapid stertorous breathing, bathed in prespiration, and pulse 140, with frequent startings and struggles to free herself from her attendants and escape from the bed.

Administered a drachm or more of chloroform by inhalation, which quieted her for a time, reducing the pulse, and bringing about a more normal condition of things. Bromide of potash was freely given after the effect of the chloroform somewhat passed off, and in an hour I left her comfortable, but still with some disposition to a return of the trouble, which, however, passed off, she falling asleep in a couple of hours afterwards, and, waking in the morning, recognized every one about her, with the exception of her mother, whom she would not own or recognize until my arrival, a couple of hours afterwards. Had passed water freely, with the effect of considerably reducing the swelling. Subsequent condition favorable.

W. H. WHITE, M. D.

Bloomfield, N. J.

Action of Narcotics in Labor.

EDS. MED. & SURG. REPORTER:

I have read with no little interest the opinions of various writers in the REPORTER, of the action of opium upon the uterus in labor. There are those who claim expulsive powers, *per se*, for it. With this class we must of necessity differ, for according to our observation no such effects have been produced by it. Admitting however, that opium by relieving the spasm of the intestines, may act indirectly as a laxative to the bowels, so may it also, by relieving the spasmodic condition of the cervix, thus "open the door" to the uterus and remove an obstacle to the passage of its contents. He who administers opium with a dilated os, for the purpose of expediting labor, anticipating therefrom increased expulsive action, will, I believe, be doomed to disappointment.

It has been my practice for many years, to administer an opiate, (a full dose), in case of a rigid cervix, and I have rarely been disappointed in the result, but instead of finding immediate *increased* uterine action, the opposite has been the result. In a great majority of cases, labor has been suspended for a brief period, not unfrequently for two or three hours, but upon a return of the "pains," a speedy delivery has frequently followed. This has not always been the case. Other causes than undilated os, often protract labor. The position of the fetus; the pelvic condition, besides much else, frequently do the same thing. I am of the opinion that no practitioner of experience would give opium in a case of protracted labor in connection with uterine exhaustion, for the purpose of increasing the "pains," or stimulating uterine contraction.

Howell, Mich. W. L. WELLS, M. D.

NEWS AND MISCELLANY.

Commencements.

On Wednesday, March 9th, Harvard conferred the degree of M. D. upon 39 graduates of its Medical Department, and the degree of Doctor of Dental Medicine upon 12 graduates. At the com-

mencement exercises five medical and one of the dental graduates read Theses, after which, the Rev. Dr. A. P. Peabody delivered an address to the graduating class.

The Commencement Exercises of the Medical Department of the Buffalo University took place on the evening of February 22d. The diplomas were presented to the graduating class by the Chancellor of the University, Millard Filmore, Ex-President of the United States. Forty-one students received the diploma of Doctor of Medicine. The Rev. Dr. Walter Clarke delivered a very able and interesting address to the graduating class.

U. S. Army Changes.

The following changes have taken place in the medical department of the U. S. Army since Oct. 1, 1869:

Resigned: Assistant Surgeon WM. F. SMITH, to date January 5. 1870; Assistant Surgeon G. H. T. F. AXT, to date February 1, 1870.

Resignation Revoked: Surgeon H. R. WIRTZ, Brevet Lieutenant Colonel. The Special Orders accepting the resignation of this officer, to take effect March 1, 1870, revoked by order of the President, per Special Orders No. 24, dated Adjutant General's office, January 29, 1870.

Retired: Brevet Brigadier General R. S. Satterlee, Chief Medical Purveyor, U. S. Army. By order of the President retired from active service, to take effect February 22, 1869. Under date of March 9, 1869, by direction of the President, ordered to remain on duty as Chief Medical Purveyor in New York City. Relieved from duty February 21, 1870, by the provisions of Par. 1, General Orders No. 15, dated Adjutant General's Office, February 5, 1870.

Brevet Brigadier General Charles McDougall, Assistant Medical Purveyor, U. S. Army. By order of the President retired from active service, to take effect February 22, 1869. Under date of March 9, 1869, by direction of the President, ordered to remain on duty as Assistant Medical Purveyor in St. Louis, Mo. Relieved from duty February 21, 1870, by the provisions of Par. 1, General Orders No. 15, dated Adjutant General's Office, February 5, 1870.

QUERIES AND REPLIES.

Dr. C. R. J. K., of N. H.—In reply to your inquiry, where you can find Brown-Sequard's celebrated formula for neuralgia, we refer you to Napheys' *Modern Therapeutics*, page 52.

Dr. J. H. S. of Iowa.—Some prefer Sim's uterine sound, some Simpson's. They cost about $1.75 each. We can send you one by mail.

Dr. W. J. C. of Pa.—We have read the minutes of the Proceedings of the last meeting of the American Pharmaceutical Association, and cannot agree with you about the blamelessness of Mr. Stearns in the Sweet uqinine transaction. We agree with the association in condemning such speculation in human misfortune, and cannot have a high opinion of the man who cannot appreciate the difference between such conduct and the ordinary principles of legitimate trade.

Dr. J. H. F. of N. Y.—St. Thomas' Hospital, London, is one of the Medical schools recognized by the University of London, and the Royal College of Physicians. It cannot itself grant the degree of Doctor of Medicine, but it furnishes a certificate of attendance on the lectures and clinics, and a certificate of this kind is a necessary prerequisite to obtaining a degree.

Dr. J. H. T. of N. Y.—Our remarks to which you refer had no reference to your article, which appeared almost verbally as you sent it.

Dr. W. H. B. Ill.—Littell's Living Age is published in Boston.

Obituary.

We regret to learn the decease of Dr. John Murphy, of Menominee, of Wis., on March 11, of rapid phthisis. He was a practitioner of fine promise, and great personal popularity.

MARRIED.

FUSSELL—FUSSELL—On March 29, 1870, at the residence of the bride's parents, by Friends' ceremony Henry M. Fussell, of Delaware county, Pa., and Mary T. Fussell, daughter of Dr. Edwin Fussell, of Cape May county, N. J.

HUNT—STEPHENSON—In New York, April 6, at the residence of the bride's mother, by the Rev. Frank S. DeHass, of Cincinnati, Julian M. Hunt, of Brooklyn, and Eleanor F. Stephenson, daughter of the late Dr. Mark Stephenson.

PARSONS—MCCLELLAN.—In Montclair, N. J., April 7th, at the residence of Mr, R. M. Hening, by Rev. Mark Hopkins, D. D., John C. Parsons, of Hartford, Conn., and Mary daughter of the late Samuel McClellan, M. D., of Philadelphia.

SHORTLIDGE—DOUGLAS—Jan. 6th, at Rockwood Delaware, by the Right Rev. Alfred Lee, D. D., of Wilmington, Bishop of Delaware, Dr. E. G. Shortlidge, of Chester Co., Pa., and Miss Lizzie A Douglas, formerly of England.

SMITH—STARR.—In New York at the Church of the Holy Trinity, by Rev. Stephen H. Tyng, Jr., Hanbury Smith, M. D., and Mrs. Victoria Starr, both of New York.

STURGIS—HAZARD.—April 6th, at Newport, R. I., F. R. Sturgis, M. D., of New York, and Martha De Wolf, daughter of the late Captain S. F. Hazard, U. S. N.

DIED.

BURNELL.—In this city suddenly on the 31st ult., George Stuckert, only son of Dr. William W. and Lizzie D. Burnell aged 6 years and 7 months.

CARTER.—In New York, suddenly, on Saturday, April 2, Galen Carter, M. D., in the 76th year of his age.

EVRITT.—April 4, at the residence of her parents, No. 29 Madison street, Brooklyn N. Y., after a brief illness, Lillie youngest daughter of Dr. D. L. and S. A. Evritt, in the 4th year of her age.

HOUSEKEEPER.—In this city, on the 30th ult., Benjamin Housekeeper, M. D., in the 63d year of his age.

PLATT.—March 29th, at his residence near Dayton, Ohio, Dr. Thomas Platt, a native of Andover, England, in the 74th year of his age.

SWAN.—In Easton, Mass., March 19th, Dr. Caleb Swan, aged 75 years.

METEOROLOGY.

MAR.	28,	29,	30,	31,	1,	2,	3,
Wind.....	S. W.	W.	N. E.	E.	N. E.	N. E.	N. E.
Weather.	Cl'dy	Clear	Cl'dy	Cl'dy	Cl'dy Rain.	Cl'dy Rain.	Cl'dy Rain.
DepthRain	1-10					1 2-10	2-10
Thermom....							
Minimum..	35°	34°	45°	41°	36°	36°	39°
At 8, A. M.	43	43	44	46	41	40	46
At 12, M...	47	50	52	49	43	43	47
At 3, P. M.	46	51	53	50	44	44	48
Mean.....	42.75	44.50	48.50	46.50	41	40.75	45.
Barometer..							
At 12, M...	29.5	30.	30.1	30.1	30.1	30.	29.9

Germantown, Pa. B. J. LEEDOM.